Center for Educational Performance and Information

Background on Graduation and Dropout Rates
June 2004 (revised 7/12/2004)

The Michigan Department of Education (MDE) did not collect dropout information for the 1986-87, 1987-88, and 1988-89 school years. In 1990, MDE consolidated several data collection forms so that a single form for pupil headcount purposes was developed to collect the information necessary to meet state and federal reporting requirements. The Pupil Headcount Report (IM-4203) form was designed so that pupil information could be reported at the building level. The student data were aggregated for each building and submitted via an electronic network called the Education Data Network (EDN).

Since 1990, the four-year estimated graduation and one-year dropout rates have been calculated utilizing the same formulas which were initially developed by a group of professional research consultants from within MDE, as well as staff from local education agencies and intermediate school districts. The one-year dropout rate is derived from the retention rate, which is calculated for students who can be accounted for. Thus, students who are unaccounted for are considered to be dropouts. The four-year graduation rate indicates, with no change in future retention rates, the percentage of ninth-grade students who will complete their senior year of school and graduate.

In 2000, the Center for Educational Performance and Information (CEPI) was created under Executive Order 2000-9. The responsibilities for maintaining the IM-4203 headcount data collection process and the calculations required for the graduation and dropout rates were transferred to this agency.

Section 19 of the State School Aid Act mandates CEPI to provide the Legislature with a District and High School Graduation Report. The report includes both a one-year dropout and a four-year estimated graduation rate for the high schools, the districts, and the state. In addition, Section 19 of the Act directs school districts and intermediate school districts to provide data to CEPI. CEPI is also required to provide statistical information to the U.S. Department of Education.

During the fall of 2002, CEPI officially began collecting single student records. This was also the last year that student headcount data, for the purposes of calculating the graduation and dropout rates, were collected via the IM-4203. CEPI had planned to utilize the Single Record Student Database (SRSD) to calculate the graduation and dropout rates using the same formulas as had been used in the past. In June 2004, CEPI notified the school districts that because of SRSD data quality issues, the graduation and dropout rates for the 2002-2003 school year could not be calculated utilizing those data.

The school districts were notified that the 2002-2003 rates would potentially be reported as an average of prior years' rates. Based on feedback from the districts and state agency review, the decision was made to pre-populate the online IM-4203 Pupil Headcount Report form via EDN. This would afford the school districts an opportunity to review, validate and correct data extracted from the SRSD submissions.

Beginning with the report for school year 2003-2004, CEPI plans to utilize a blended approach, as approved by the CEPI Advisory Committee (Appendix A).

The SRSD exit codes utilized for the graduation and dropout rates are included in Appendix B. The processes to determine the rates are documented as business rules. The following will detail the business rules for the 2003-2004 school year graduation and dropout rates.

For all SRSD submissions, only those records that passed the CEPI Error Check will be included. CEPI will eliminate records that are total duplicates and retain only a single record for each student.

It will take a minimum of four consecutive submissions (fall, spring, end of year (EOY), and fall) of single record student data in order to determine the disposition of any given student from the previous school year.

Fall 2003 Submission

Step 1: Select all records with a grade level equal to "09," "10," "11," "12," or "14" in Field 19: Grade or Setting.

Step 2: Select all records with an exit status equal to "19" in Field 23: District Exit Status.

Step 3: Remove all records that have a "1" in the seventh position (Migrant) or a "1" in the eighth position (Adult) of Field 29: Program Eligibility/Participation.

Step 4: Remove all records that have a "1" in the first position (Alternative Education) of Field 125: Program Eligibility/Participation II.

Step 5: Remove all nonpublic and home-schooled student records that have a code equal to "04," "07," "08," or "15" in Field 30: Student Residency.

Step 6: Identify all duplicate records based on district code (Field 3: Operating District Number), school code (Field 5: School or Facility), last name (Field 6: Student's Last Name), first name (Field 7: Student's First Name), date of birth (Field 9: Date of Birth), and gender (Field 11: Gender Code).

Step 7: Split file into two data sets.
1. One with the non-duplicate records.
2. One with the duplicate records (de-duplicate).

Step 8: De-duplicate: The goal is to have one unique record per student per cycle per district per school code.

- If two or more records have different enrollment dates and none have exit dates, then select the record with the most recent enrollment date.

- If two or more records have different enrollment dates and one or more of the records have an exit date, select the record with the most recent enrollment or exit date.

- If two or more records have the same enrollment date, then check the exit dates. If an exit date exists in one or more records and the exit date is after the enrollment date, then select the record with the most recent exit date. Otherwise, select the record without the exit date.

- If two or more records have the same enrollment date and none of the records have exit dates, select the record that has been identified as the first duplicate record.

Step 9: Concatenate the de-duplicated file with the non-duplicate file.

Step 10: Assign each record to a graduating year based on grade level (e.g., 12th=2004, 11th=2005, etc.).

Step 11: Aggregate by district code by school code by graduating year.

This file will be the base file used for the fall 2003 enrollment.

Spring 2004 and EOY 2004 Submissions

Step 1: Select all records with a grade level equal to "09," "10," "11," "12," or "14" in Field 19: Grade or Setting.

Step 2: Remove all records that have a "1" in the seventh position (Migrant) or a "1" in the eighth position (Adult) of Field 29: Program Eligibility/Participation.

Step 3: Remove all records that have a "1" in the first position (Alternative Education) of Field 125: Program Eligibility/Participation II.

Step 4: Remove all nonpublic and home-schooled student records that have a code equal to "04," "07," "08," or "15" in Field 30: Student Residency. Residency is not submitted for EOY 2004 submission.

Step 5: Remove all records with an invalid exit date (Field 24: Date Exited):
- Spring 2004
  - Remove records with an exit date on or prior to fall 2003 count date.
  - Remove records with an exit date after spring 2004 count date.
- EOY 2004
  - Remove records with an exit date on or prior to spring 2004 count date.
  - Remove records with an exit date after EOY 2004 count date.

Step 6: Identify all duplicate records based on district code (Field 3: Operating District Number), school code (Field 5: School or Facility), last name (Field 6: Student's Last Name), first name (Field 7: Student's First Name), date of birth (Field 9: Date of Birth), and gender (Field 11: Gender Code).

Step 7: Split file into two data sets.
1. One with the non-duplicate records.
2. One with the duplicate records (de-duplicate).

Step 8: De-duplicate: The goal is to have one unique record per student per cycle per district per school code.

- If two or more records have different enrollment dates and none have exit dates, then select the record with the most recent enrollment date.

- If two or more records have different enrollment dates and one or more of the records have an exit date, select the record with the most recent enrollment or exit date.

- If two or more records have the same enrollment date, then check the exit dates. If an exit date exists in one or more records and the exit date is after the enrollment date, then select the record with the most recent exit date. Otherwise, select the record without the exit date.

- If two or more records have the same enrollment date and none of the records have exit dates, select the record that has been identified as the first duplicate record.

Step 9: Concatenate the de-duplicated file with the non-duplicate file.

Step 10: Assign each record to a graduating year based on grade level (e.g., 12th=2004, 11th=2005, etc.).

Step 11: Categorize each record (see Appendix B) as:
- **Graduate** - If the exit status (Field 23: District Exit Status) is equal to "01," "02," "04," "05," "06," or "20" and grade (Field 19: Grade or Setting) is equal to "11," "12," or "14," count as a graduate.
  - If the exit status indicates the student is graduating and the grade is equal to "09" or "10," count as a **dropout**.
- **Transfer IN** – new to the district
  - Spring 2004 – If the enrollment date (Field 20: Date of Enrollment) is after fall 2003 count date and on or before spring 2004 count date, count as transfer IN.
  - EOY 2004 – If the enrollment date (Field 20: Date of Enrollment) is after spring 2004 count date and on or before EOY 2004 count date, count as transfer IN.
- **Transfer OUT** – If the exit status is equal to "03," "08," "09," "12," "14," "15," "25," or "26," count as transfer OUT.
- **Dropout** - If the exit status is equal to "07," "10," "11," "13," "16," "17," or "21," count as a dropout.

Step 12: Aggregate by district code by school code by graduating year by category.

This file will be the base file used for the spring/EOY 2004 transfer and graduation information.

Fall 2004 Submission

Step 1: Select all records with a grade level equal to "09," "10," "11," "12," or "14" in Field 19: Grade or Setting.

Step 2: Remove all records that have a "1" in the seventh position (Migrant) or a "1" in the eighth position (Adult) of Field 29: Program Eligibility/Participation.

Step 3: Remove all records that have a "1" in the first position (Alternative Education) of Field 125: Program Eligibility/Participation II.

Step 4: Remove all nonpublic and home-schooled student records that have a code equal to "04," "07," "08," or "15" in Field 30: Student Residency.

Step 5: Remove all records with an invalid exit date (Field 24: Date Exited):
  1. Remove records with an exit date on or prior to EOY 2003 count date.
  2. Remove records with an exit date after fall 2004 count date.

Step 6: Identify all duplicate records based on district code (Field 3: Operating District Number), school code (Field 5: School or Facility), last name (Field 6: Student's Last Name), first name (Field 7: Student's First Name), date of birth (Field 9: Date of Birth), and gender (Field 11: Gender Code).

Step 7: Split file into two data sets.
  1. One with the non-duplicate records.
  2. One with the duplicate records (de-duplicate).

Step 8: De-duplicate: The goal is to have one unique record per student per cycle per district per school code.

  - If two or more records have different enrollment dates and none have exit dates, then select the record with the most recent enrollment date.

  - If two or more records have different enrollment dates and one or more of the records have an exit date, select the record with the most recent enrollment or exit date.

  - If two or more records have the same enrollment date, then check the exit dates. If an exit date exists in one or more records and the exit date is after the enrollment date, then select the record with the most recent exit date. Otherwise, select the record without the exit date.

  - If two or more records have the same enrollment date and none of the records have exit dates, select the record that has been identified as the first duplicate record.

Step 9: Concatenate the de-duplicated file with the non-duplicate file.

Step 10: Assign each record to a graduating year based on grade level, taking into account that the 12th graders in fall 2004 are the same cohort as the 11th graders from EOY 2004 (e.g., 12th=2005, 11th=2006).

Step 11: Categorize each record (see Appendix B) as:
- **Graduate** - If the exit status (Field 23: District Exit Status) is equal to "01," "02," "04," "05," "06," or "20" and grade (Field 19: Grade or Setting) is equal to "11," "12," or "14," count as a graduate.
  o If the exit status indicates the student is graduating and the grade is equal to "09" or "10," count as a **dropout**.
- **Transfer IN** – new to the district
  o If the enrollment date (Field 20: Date of Enrollment) is after EOY 2004 count date and on or before fall 2004 count date, count as transfer IN.
- **Transfer OUT** – If the exit status is equal to "03," "08," "09," "12," "14," "15," "25," or "26," count as transfer OUT.
- **Dropout** - If the exit status is equal to "07," "10," "11," "13," "16," "17," or "21," count as a dropout.
- **Continuing** – If the exit status is equal to "19," count as continuing.

Step 12: Aggregate by district code by school code by graduating year by category.

This concatenated file will be the base file used for the fall 2004 enrollment, Class of 2004 graduates, and transfers.

There are a myriad of ways in which one could calculate dropout and graduation rates. The procedure described here utilizes the same basic methodology that was used with the EDN for the past ten years to calculate the rates. The only differences are reflections of current legislation and use of the SRSD as the primary data source.

Upon implementation of the student data warehouse, additional business rules concerning student mobility will be applied.

APPENDIX A

The timeline and data sets to be included for each of the five years are as follows:

School Year	Reporting School Year	Details for Calculating Rates
2003-2004	2002-2003* rates released fall 2004	The 2002-2003 graduation and dropout rates will be calculated via EDN. The IM-4203 Pupil Headcount Report form will be pre-populated with aggregated data extracted from the 2002-2003 SRSD submissions.
2004-2005	2003-2004* rates released summer 2005	We plan to use one year of SRSD (03-04) rates **plus** three years of EDN historical rates (02-03, 01-02, and 00-01).
2005-2006	2004-2005* rates released summer 2006	We plan to use two years of SRSD (04-05 and 03-04) rates **plus** two years of EDN historical rates (02-03 and 01-02).
2006-2007	2005-2006* rates released summer 2007	We plan to use three years of SRSD (05-06, 04-05 and 03-04) rates **plus** one year of EDN historical rates (02-03).
2007-2008	2006-2007* rates released summer 2008	We plan to use only SRSD data – true cohort.

*Graduation and Dropout rates are calculated one year behind of current school year.

In order to calculate graduation and dropout rates that span the students' full high school experiences, five years of the students' data will be necessary. In order to provide for a smooth transition from the former methodology to the future methodology, an incremental blended rate will be used. This procedure will allow districts adequate time to review the results of the data they are submitting; identify any areas where validity, accuracy or reliability are concerns; and modify their student management systems to improve the quality of their student data.

APPENDIX B

Categorization of Exit Codes for Graduation/Dropout Rate Calculation		
Exit Code	*Exit Definition*	*Category*
01	Graduated from general education with a diploma	Graduate
02	Graduated from general education with a diploma and applied to a degree-granting college or university	Graduate
03	Graduated from an alternative program	Transfer out
04	Graduated from general education with a diploma and applied to a non-degree-granting institution	Graduate
05	Completed general education with an equivalency certificate	Graduate
06	Completed general education with other certificate	Graduate
07	Dropped out of school	Dropout
08	Enrolled in another district in Michigan	Transfer out
09	Moved out of state	Transfer out
10	Expelled from the school district (no further services)	Dropout
11	Enlisted in military or Job Corps	Dropout
12	Deceased	Transfer out
13	Incarcerated	Dropout
14	Enrolled in home school	Transfer out
15	Enrolled in non-public school	Transfer out
16	Unknown	Dropout
17	Placed in a recovery or rehabilitative program	Dropout
18	Left Adult Education	Not applicable
19	Expected to continue in the same school district	Currently enrolled – continuing education in the district
20	Received certificate of completion or finished IEP requirements	Graduate
21	Reached maximum age	Dropout
22	Declassified	Currently enrolled – continuing education in the district
25	Enrolled in another district, known to continue in special education	Transfer out
26	Enrolled in another district, known not to continue in special education	Transfer out